

Remarks

This Amendment is in response to the Office Action dated **September 19, 2007**. Claims 1-20 are pending in this application. Claims 8 and 9 have been withdrawn from consideration. The Office Action rejected claims 1-7 and 10-20 under 35 USC § 103 over Berra (US 2004/0215319) in view of Khosravi (US 6290720). The rejection also cites to Yip (US 2004/0230293), Brown (US 2002/0007212) and Oepen (US 2002/0161428).

By this Amendment, claims 1, 5, 11-13, 17 and 18 are amended and claims 21 and 22 are added. Applicant reserves the right to prosecute all cancelled subject matter in a subsequent patent application claiming priority to the immediate application. Support for the amendments can be found in the application at least at page 9, lines 4-16 and in various Figures. No new matter has been added. Reconsideration in view of the above amendments and the following remarks is requested.

Claim Rejections

Although the rejections are traversed, claim amendments made herein for the purpose of furthering prosecution of the application are believed to render the rejections moot. Therefore, withdrawal of the rejections under 35 USC § 103 is requested.

With respect to the combination of Berra and Khosravi, Applicant asserts that the rejection does not provide a suggestion or motivation to modify Berra in a way that would result in a device that meets the limitations of the pending claims.

Berra discloses a stent-graft made from a plurality of spaced apart stent springs coupled to a cylindrically shaped stent-graft material. See paragraph 0023. The adjacent stent springs 202 “are **spaced apart** and coupled, e.g., **sewn**, to cylindrical shape stent-graft material 203...with sutures (not shown).” See paragraph 0029 (emphasis added) and FIG. 5A, shown below.

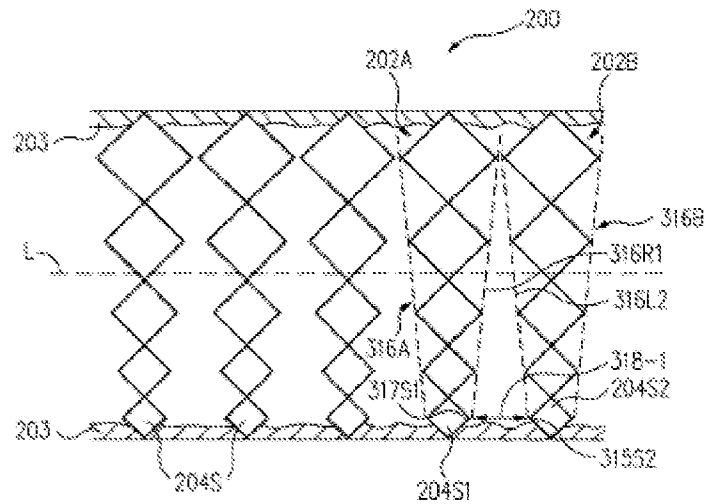


FIG. 5A

Thus, the Berra device includes a plurality of separate and independent stent springs 202. Each stent spring 202 is connected only to the graft material and is not directly connected to any other stent spring 202.

The rejection cites to Khosravi for the purpose of teaching connecting elements 34. See Office Action at page 3 and Khosravi Figure 2, provided below.

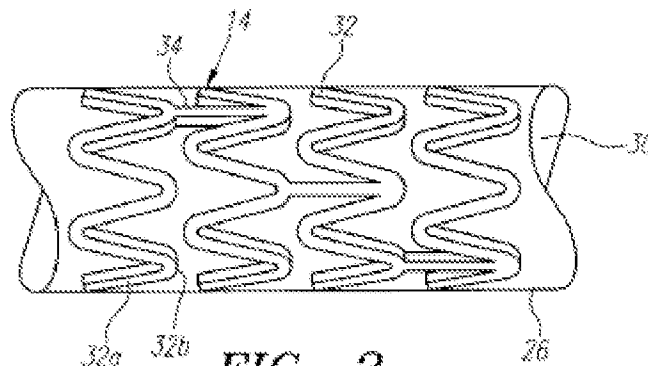


FIG. 2

The rejection asserts that it would have been obvious “to modify the device of Berra as taught by Khosravi. Doing so would provide a connection between the serpentine bands...thus providing alignment between the bands.” See Office Action at page 3.

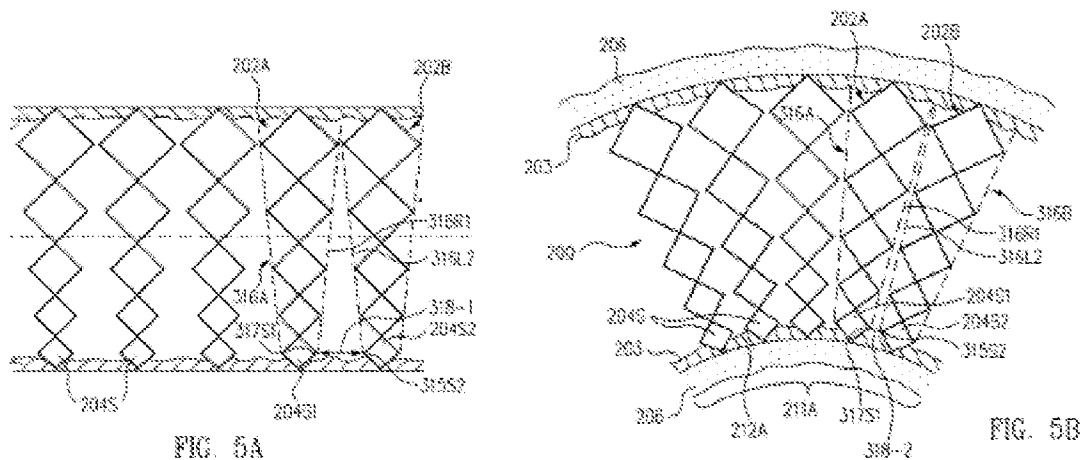
Although the rejection proposes a modification to Berra, there is no explanation of the actual modification that would be performed, and there is no discussion of the resulting structure. Other than the inherent implication that the resulting proposed structure(s) meet the limitations of the rejected claims, the rejection does not discuss the structure(s) that are allegedly

made obvious by the applied references.

A person of ordinary skill in the art would recognize that adding Khosravi connectors to the Berra device: 1) is unnecessary; and 2) would decrease flexibility of the Berra device.

The rejection asserts that adding connectors would provide alignment between the Berra bands, however, a person of ordinary skill in the art would recognize that the Berra graft material already provides alignment between the Berra bands. Because the bands are sewn to the graft material, the graft material prevents the bands from rotating out of alignment with one another. If the bands were not held in alignment by the graft material, the Berra device would not be suitable for use in a curved vessel, as proper alignment between the bands is critical to the curved shape. Therefore, the reason for modification asserted in the rejection does not present an actual motivation to modify Berra.

Further, the Berra device relies upon freedom of movement between the smaller portions of the adjacent bands. Specifically, the spacing between “smaller” cells of the adjacent bands is greater before deployment, and the “smaller” cells (e.g. 204S1, 204S2) move toward one another as the Berra device is deployed. See e.g. paragraphs 0056, 0057 and Figures 5A and 5B, provided below.



The freedom for change in spacing between stent bands at the inside of the curve allows the Berra stent-graft to be flexible enough to traverse a tortuous anatomy, and then to also properly deploy on a curve. Thus, freedom of movement is important for proper operation of the

Berra device.

A person of ordinary skill in the art would recognize that the connecting elements of Khosravi are not directly transferable to the Berra device. For example, adjacent band elements of Khosravi are not tapered, while the band elements of Berra are tapered. Therefore, the connecting element configuration of Khosravi cannot be simply transposed onto the Berra structure. For example, a person of ordinary skill in the art would recognize that any Khosravi connecting elements added to the lower half of Figure 5A, for example as illustrated in a modified version of Figure 5A below, would prevent the Berra device from assuming the curved shape of the vessel as shown in Figure 5B above.

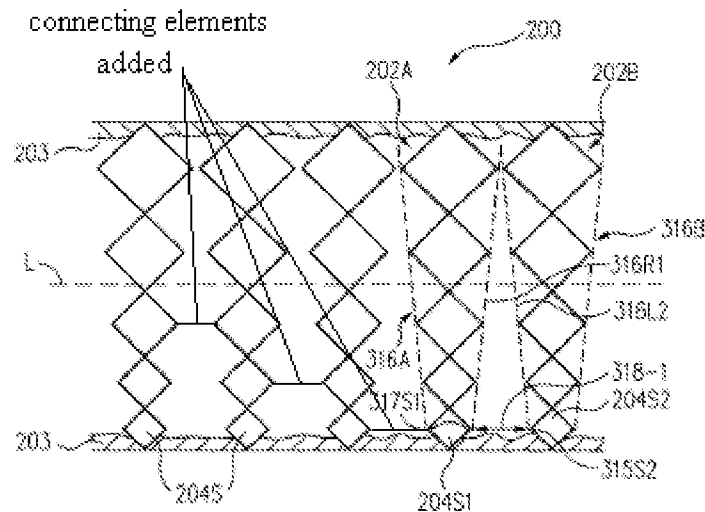
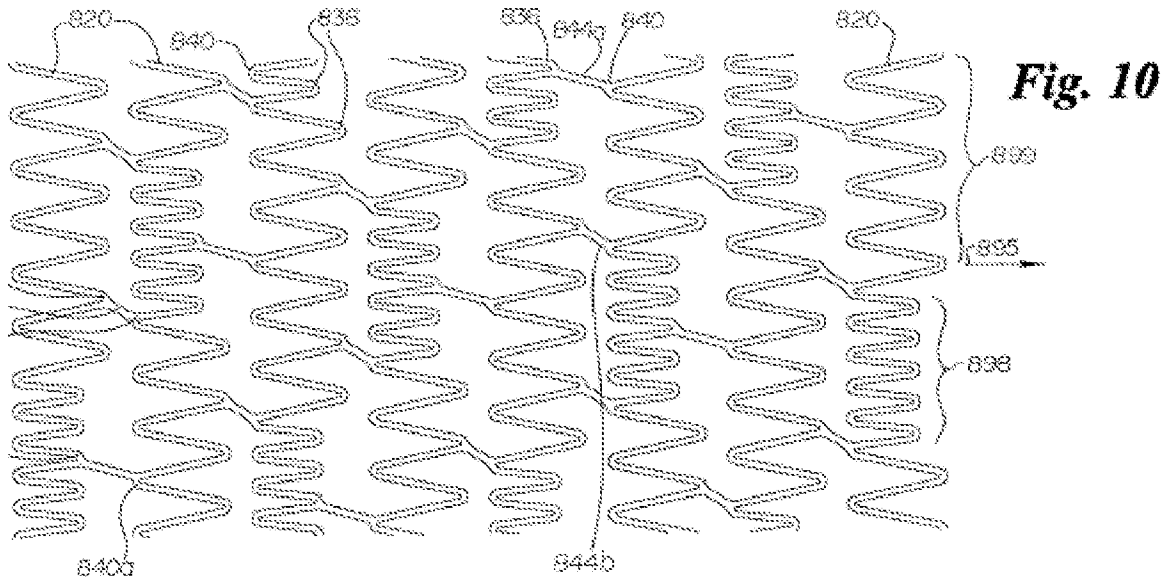


FIG. 5A

Thus, the addition of Khosravi connectors would have a negative impact on the flexibility and deployment characteristics of the Berra device, and a person of ordinary skill in the art would not be motivated to add connectors to Berra.

Applicant notes that many rejections included in the Office Action do not discuss modified structures that are actually suggested by the applied references, but instead simply conclude that the claims are obvious. For example, at page 4 the Office Action states, “With further respect to claims 4-7, it is well known in the art to provide serpentine bands having different geometries, wherein the geometries include those as claimed in claims 4-7 (for example, see Brown’s 2002/0007212). Therefore it would have been an obvious matter of design choice to arrange the serpentine bands as claimed in claims 4-7.”

The conclusory allegations in the Office Action fail to consider the Brown reference as a whole. For example, Brown Figure 10, provided below, shows a stent wherein each band includes a region 898 having a smaller wavelength and a region 899 having a larger wavelength. The smaller wavelength regions 898 of adjacent bands are circumferentially offset from one another. See paragraph 0067. This staggering of the smaller wavelength regions 898 helps to prevent contact, overlap and kinking of the adjacent bands.



Although Brown shows a stent embodiment having bands wherein all of the turns at the proximal end of the band are aligned and some of the turns at the distal end of the band are not aligned, which is similar to the limitations recited in dependent claim 5, when the teachings of Brown are considered as a whole, there is no specific motivation to modify the tapered bands of the Berra device. The tapered Berra bands are not subject to contact and overlap, and it is unclear how Brown Figure 10 would provide motivation to change the Berra bands, absent an impermissible hindsight use of Applicant's teachings in an attempt to reach the pending claims.

Further with respect to the "change in size" assertion on page 4, although it may be within the level of ordinary skill in the art to resize an entire device, the modification required to meet the rejected claims would require selective resizing of only certain portions of a device. The rejection does not discuss why a person of ordinary skill in the art would be motivated to selectively resize only the particular elements necessary to meet the rejected claims. Therefore, the rejection does not provide an actual explanation of why the rejected claims are rendered

obvious.

Claim Amendments

Independent claim 1 has been amended and requires two connecting elements between a first serpentine band and a second serpentine band, wherein the second connecting element is shaped differently from the first connecting element.

New claim 22 is added, dependent from Figure 1, which specifies that the claimed stent is not part of a stent-graft.

Independent claim 17 is amended and requires a second connecting element to be shaped differently from a first connecting element.

Independent claim 18 is amended and requires a second connecting element to be longer than a first connecting element, and also to comprise a curved portion.

Applicant teaches that curvature in a connecting element allows the span of the connecting element to lengthen/foreshorten as necessary, thereby allowing the distance between turns of adjacent serpentine bands to be adjusted without sacrificing scaffolding support. Thus, the claimed curved connector configuration allows the stent to be adaptable for use in vessels having varying degrees of curvature. See page 9, lines 10-16.

Conclusion

Based on at least the foregoing amendments and remarks, Applicants request withdrawal of the rejections presented in the Office Action. Favorable consideration and prompt allowance of claims 1-22 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

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